

**REMARKS**

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow, are respectfully requested.

Claims 1-6 have been amended and new claims 7-13 added at least partly in response to issues raised in the Office Action. By the present amendment, claims 1-6 are now directed to a preferred embodiment where an alkaline earth metal oxide is combined with aluminum oxide. Most preferably, the oxide is magnesium oxide. The ranges of proportions in claim 2 and new claim 9 are disclosed on page 5 of the specification. The amendments to claims 4 and 5 find support on pages 6-7 while the features in new claim 7 find support on page 9, lines 8-10. Claims 12 and 13 find support on page 5, lines 2-4 of the specification. Claims 1-13 are now pending in this application.

**PRIORITY CLAIM**

A claim for priority under 35 U.S.C. §119 and a certified copy of Japanese Patent Application No. 2000-030094 were filed on January 31, 2001. Applicants respectfully request that the Examiner acknowledge the priority claim and filing of the certified copy in the next Office Action.

REJECTION OVER U.S. PATENT NO. 6,563,011

Claims 1, 2 and 4 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,563,011 to Atobe et al for the reasons given on page 2 of the Office Action. Reconsideration of this rejection is requested in view of the above amendments and for at least the reasons which follow.

Atobe et al '011 discloses a reactive agent for decomposing fluorine compounds comprising an aluminum oxide and an alkaline earth metal compound. A metal oxide also may be present. The only alkaline earth metal compounds disclosed are carbonates, specifically calcium, magnesium, strontium or barium carbonates (column 3, lines 8-11). The list of metal oxides in column 3, lines 25-26 mentions no alkaline earth oxides.

Moreover, the filing date of the utility application which issued as U.S. Patent No. 6,563,011 is April 28, 2000. The present application is based on Japanese Application No. 2000-030094, filed February 8, 2000. A certified English-language translation of the Japanese priority application is attached. Accordingly, the §102(e) rejection over this document should be withdrawn since the effective filing date of April 28, 2000, has been antedated.

REJECTION OVER U.S. PATENT NO. 6,069,291

Claims 2 and 3 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,069,291 to Rossin et al for reasons supplied on page 3 of the Office Action. Reconsideration of this rejection is requested in view of the above amendments and for at least the reasons which follow.

Rossin et al '291 discloses catalysts used to decompose perfluoroalkanes. The catalysts consist of aluminum oxide stabilized with a metallic element selected from barium, calcium, cerium, chromium, cobalt, iron, lanthanum, phosphorus, magnesium, nickel, silicon, titanium, yttrium and zirconium. Preferred elements from this list are cerium, titanium or zirconium. Note the discussion in column 4, lines 1-8. The Examiner refers to Example IV and theorizes that magnesium oxide would inherently be present because magnesium nitrate would be oxidized to the oxide during calcination. Respectfully, Applicants disagree for the following reasons.

The calcination is designed to convert aluminum oxide precursors such as pseudoboemite alumina into the desired phase of aluminum oxide. Note column 4, lines 36-54 and 60-61; column 5, lines 6-8; column 6, lines 8-15, etc. The stabilizing element must be present as the free metal, i.e. not in the form of oxides thereof. There is nothing in the disclosure of this reference which indicates that metal oxides are useful as stabilizers. Accordingly, oxidation of magnesium nitrate to magnesium oxide is unlikely since this would undoubtedly render the stabilizer inoperative for its purpose.

Moreover, there is no evidence of record to support the Examiner's theory that the calcination conditions in Example IV inherently provide an amount of magnesium oxide which is within the ranges set forth in amended claims 2 and 3. "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." In re Rijckaert, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' In re Robertson, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999)." "In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. of Pat. Apps. & Inter. 1990)." Note MPEP §2112.

In view of the above arguments, Applicants submit that claims 2 and 3, as amended, are not anticipated by Rossin et al '291. Accordingly, the §102(e) rejection over this patent should be withdrawn.

REJECTION OVER U.S. PATENT NO. 6,110,436

Claims 1-6 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,110,436 to Scholz et al for the reasons expressed on pages 3-4 of the Office Action. Reconsideration of this rejection is respectfully requested for at least the following reasons.

Scholz et al '436 discloses a process for removing fluorinated compounds from gases by contacting the gas with aluminum oxide. The patent suggests that alumina can be "doped with metal of groups Ia, IIa, IVa, Ib, IIb, IVb, VIb, VIIb and VIIIb. The sorbent can also contain certain oxides and other compounds of these metals." See column 3, lines 42-45. No specific metal, oxide or other compound is disclosed. The only sorbent used in the working examples and recited in the claims of this patent is alumina.

There is no disclosure in Scholz '436 that would motivate those of ordinary skill to select an alkaline earth metal compound such as an oxide or hydroxide thereof as a dopant from among the literally hundreds of possible metals, oxides and other compounds encompassed by the above-quoted passage. Nor would there be a reasonable expectation that the addition of an alkaline earth metal compound to alumina would be successful, i.e. provide an acceptable sorbent.

Furthermore, the aluminum oxide in Scholz et al '436 actually reacts with the fluorinated compounds and is soon exhausted. Comparative Example 1 on page 10 of the instant specification shows that the presently claimed solid reactants are more

efficient over a longer period of time than aluminum oxide *per se*. This result could not have been predicted from the disclosure of the reference.

For at least the above reasons, the §103(a) rejection over Scholz et al '436 should be reconsidered and withdrawn. Such action is earnestly solicited.

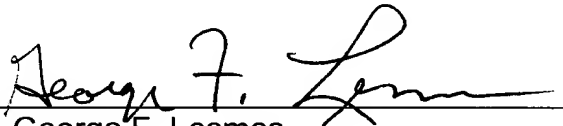
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683.

Respectfully submitted,

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